

# Harvest the Wind

Opportunities for Rural Economic  
Development

Lisa Daniels

# Windustry

- 1995-1999 Minnesota Focus
  - Survey of over 400 Farmers for interest in wind
    - 92% believed renewable energy production could be a significant part of rural economic development
    - 96% ranked as barriers to participating in wind energy development
      - Lack of operation knowledge
      - Lack of understanding of wind energy economics

# Windustry

- In 2000
  - Great Plains, regional and national work
  - [www.Windustry.org](http://www.Windustry.org)
  - providing information and technical assistance for wind energy development
  - online tools for evaluating distributed project feasibility
  - 1-800 Hotline for wind energy questions

# Wind Development

- Large Wind Plant
- Distributed Wind

# Large Wind Plant

- Comprised of large concentrations of wind turbines
- Transmission Lines Required
- Power delivered to distant population or load center

# Distributed Wind Development

- Single or Small clusters of wind turbines
- Connected to Existing or Upgraded distribution grid
- Power is used locally
- Often projects are owned and operated by local landowners or investors, small businesses or large energy consumers

# Harvest the Wind

- Lease Land to a wind developer
- Form an ownership entity
- Own a wind turbine (small wind turbines)

# Rural Economic Development

## Benefits of Existing Projects

- Construction and Engineering Jobs
- Operation & Maintenance Jobs
  - High Skill
  - Long-term
  - Local labor
- Tax Revenue to counties, local school districts and townships



# Benefits of Existing Projects

- Multiplier effect of new \$\$
  - Operation and Maintenance Income
  - Lease Payments to Landowners
- Additional value for new industry and diversity to rural communities

# Wind Easements We Have Seen

- No standards
  - Some good, some bad, some ugly
- Long Term
  - Range from 20 years to perpetuity
  - Most common 25-33 years
- Main benefit
  - A way to participate in wind development with no cash outlay from landowner

# Wind Easements We Have Seen

- Annual Payments Lease Contract
  - small up-front payment and
  - annual payments based on the wind turbine's annual kWh
  - An Example:
    - \$2,500 per turbine initially
    - then 2% of gross revenue annually for 15 yrs
    - Then 4% of gross revenue for the remaining 15 yrs

# Wind Easement We Have Seen

- Another Example:
  - Contract pays the landowner a set rate per kWh generated by the wind turbines
  - The fee is then adjusted for inflation periodically

# Wind Easement Contracts We Have Seen

- Lesson Learned in Minnesota
  - Lump Sum payments
    - One time payment to the landowner for the right to install wind turbines and an access road on a parcel of land
    - Based on:
      - Exclusive wind rights on a whole parcel or a portion
      - A great amount of time like 50 yrs or perpetuity
      - Number of wind turbines installed
      - Acres of land used for the access road

# Landowner Wind Easements

- Lessons Learned
  - Ask questions
  - Talk to your neighbors
  - Talk to other landowners that are hosting wind turbines on their land
  - Negotiate amendments to suit

# When does a wind developer comes a'knocking. . .

- We have seen:
  - Site selection After negotiating a power purchase agreement (PPA)
  - Site selection Before negotiating a PPA
  - Utility advise or provide the site for the wind development

# Forming an Ownership Entity

Become a wind energy developer

- Investor groups
- Tribal Community
- Tribal Power Authorities
- Cooperatives
- Limited Liability Companies
- Greater Risks but greater financial rewards



# Own a Small Wind Turbine

- Generate electricity for your own residence and farm or small business use
- Often small machines qualify for net metering incentives (vary from state to state)
- Often economical for remote locations
- Cleaner and cheaper than traditional fossil fuel generators

# How to View Wind Power

- As a significant new crop
  - compared with corn, soybeans, wheat & ranching
- As a new energy resource
  - compared with oil and gas
- A new industry for rural economy
  - adds diversity of natural resource-based industries for rural US

# Challenges for Wind Power

- Access to capital
- Access to the Grid
- Access to Markets
- Access to Information
- Public Policy
- Grassroots Support

# Access to Capital

- Policy for incentives
- Collaborate to create new funding mechanisms
- Information forums for traditional rural money lenders
- New and renewed partnerships with Muni's and REC's

# Access to the Grid

## Farm to Market Roads

- Standards for grid interconnection
- New grid regulations and management organizations
- New forms of ownership or stewardship

# Access to Markets

- Policy
- Utility relations/negotiations
- Standard PPA's and Tariffs
- Create new mechanisms - aggregate load and green tag
- Local consumption from high energy users

# Other Challenges

- Access to information
- Public policy
- Grassroots support

# In Conclusion

- Although there are sizable challenges for developing wind energy - the potential payoffs are enormous not only for the rural economy but also for the environment. This is sustainable development.